## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012712 Address: 333 Burma Road **Date Inspected:** 10-Mar-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG Segment** 

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 7AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA034-004. The welder is identified as #058087 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-FCM-repair-1 for CWR1210 UT repair ant Y location 6490mm.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA034-004. The welder is identified as #215553 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-FCM-repair-1 for CWR1210 UT repair ant Y location 1540mm.

Segment 7BW/7CW

# WELDING INSPECTION REPORT

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7B-007. The welder is identified as #066326 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7B-006. The welder is identified as #045196 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed back gouging of the CJP root pass of the Bottom Plate segment splice.

#### Segment 6AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG027D-001. The welder is identified as #048659 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-repair-1 for CWR1261 UT repair.

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on FL3 web to bottom flange hold back CJP welds at panel points 38, 39, 40.

## Segment 6CE

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on Side Plate WT stiffener hold back fillet welds at panel point 47, cross beam side.

#### Segment 6CW

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on Side Plate WT stiffener hold back fillet welds at panel point 47, counter weight side.

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on Deck Plate Stiffener hold back welds at panel points 44-46 at cross beam connection point.

#### Segment 7BE/7CE

This QA Inspector observed back gouging of the CJP root pass of the Side Plate CJP segment splice, cross beam side.

# Segment 6AE

This QA Inspector observed grit blasting in progress on the interior components.

# WELDING INSPECTION REPORT

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ZPMC Quality Control (QC) Inspector is identified as Zhang Hai Tao. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# **Summary of Conversations:**

No relevant conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer